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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/313,299	05/17/1999	JAMES LEE	P0963R1D1	3713

7590

05/20/2002

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EXAMINER
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MURPHY, JOSEPH F

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 05/20/2002

20

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/313,299

Applicant(s)

LEE ET AL.

Examiner

Joseph F Murphy

Art Unit

1646

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-59 is/are pending in the application.
- 4a) Of the above claim(s) 37-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40,46-50,56 and 57 is/are rejected.
- 7) ☒ Claim(s) 41-45, 51-55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>18</u> . | 6) <input type="checkbox"/> Other:  |

Art Unit: 1646

## **DETAILED ACTION**

### ***Formal Matters***

Claims 58-64 were cancelled and claim 4 was amended in paper No. 19, 2/12/2002.

Claims 37-57 are pending. Claims 37-39 stand withdrawn from consideration pursuant to 37

CFR 1.142(b). Claims 40-57 are under consideration.

### ***Response to Amendment***

The rejection of claims 41-45 and 51-54 under 35 USC § 102(e) as being anticipated by U.S. Patent no. 5,932,540 (Hu et al.) has been withdrawn.

The rejection of claims 40-49 under 35 USC § 112 second paragraph has been obviated by Applicant's amendment, and is thus withdrawn.

The rejection of claims 50-57 under 35 USC § 112 second paragraph has been withdrawn.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 40, 46-50, 56-57 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5932540 (Hu et al.) for reasons of record set forth in Paper No. 16, 7/27/2001.

Art Unit: 1646

U.S. Patent No. 5932540 discloses polynucleotides encoding full length or truncated VEGF2 polypeptides having the amino acid sequences shown in SEQ ID NO: 2 (claim 1). The polypeptide of SEQ ID NO: 2 disclosed in the '540 patent comprises the polypeptide of SEQ ID NO: 3 amino acids 21-49 (see Sequence Comparison A, attached). Also disclosed are methods of administration of the isolated polypeptide comprising a mature portion of a protein consisting of the amino acid sequence of SEQ ID NO: 2 (claim 61). Also disclosed are methods of using the polypeptides in vitro (column 3, lines 42-47). The methods disclosed in the '540 patent to administer polypeptides use identical products to the methods claimed in the instant application, therefore it is an inherent property of the methods disclosed in the '540 patent to stimulate tyrosine phosphorylation of flt4, and the claims are anticipated.

Applicant argues that the VEGF is not a ligand for flt4 and that flt4 is not present on all endothelial cells, thus flt4 and its ligand, VRP, act in a different manner than VEGF, and that processes involving VEGF/VEGF receptor do not necessarily involve flt4. However, the method of the instant claims use open language to describe the polypeptide, i.e. comprising the amino acid residues 21 to 49 of SEQ ID NO: 3. The VEGF2 disclosed in the '540 patent comprises this sequence. Additionally, the '540 patent discloses administration of the polypeptide comprising the sequence. The Pajusola et al. reference cited by Applicant in the specification that VEGF does not bind and activate the phosphorylation of flt4 is inapposite since the '540 patent is directed to VEGF2, not VEGF. Since the polypeptide disclosed in the '540 patent meets the structural limitations imposed by the instant claims, it would be expected to bind and stimulate the phosphorylation of flt4. Additionally, the method of administration of the polypeptide of the

Art Unit: 1646

'540 patent does not restrict the class of endothelial cells to which the polypeptide is directed (see claim 31, column 53), thus it would encompass flt4 expressing endothelial cells.

### ***Conclusion***

Claims 40, 46-50, 56-57 are rejected.

Claims 41-45, 51-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Art Unit: 1646

***Advisory Information***

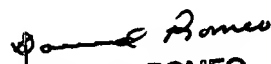
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph F. Murphy whose telephone number is 703-305-7245. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 703-308-6564. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-0294 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Joseph F. Murphy, Ph. D.  
Patent Examiner  
Art Unit 1646  
May 15, 2002



DAVID S. ROMEO  
PRIMARY EXAMINER